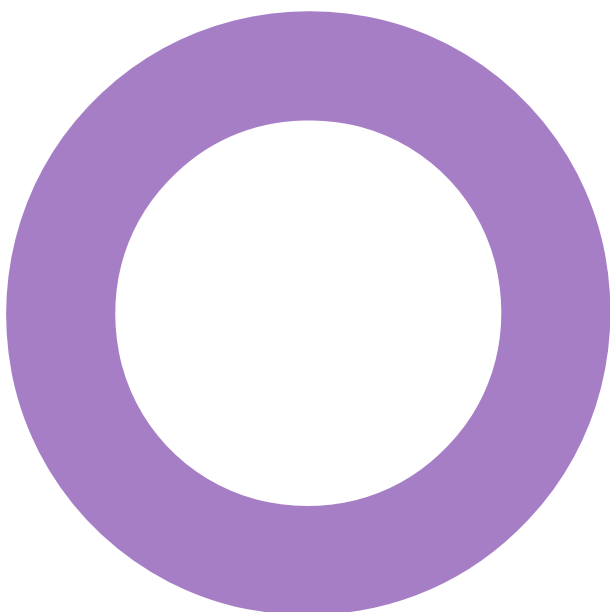


# **Accu Stadium Hotel. Huddersfield.**

## **Town Sports & Entertainment Group.**

**AIR QUALITY**  
AIR QUALITY ASSESSMENT

REVISION 02 – 10 JULY 2026



## Audit sheet.

| Rev. | Date       | Description of change / purpose of issue | Prepared | Reviewed | Authorised |
|------|------------|------------------------------------------|----------|----------|------------|
| 00   | 10/04/2026 | First Draft                              | JR       | JJ       | LB         |
| 01   | 24/04/2026 | First Issue                              | JR       | JJ       | JJ         |
| 02   | 10/07/2026 | Issue for Planning                       | JR       | JJ       | JJ         |
|      |            |                                          |          |          |            |
|      |            |                                          |          |          |            |
|      |            |                                          |          |          |            |
|      |            |                                          |          |          |            |
|      |            |                                          |          |          |            |

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## Executive summary.

Hoare Lea have been commissioned by Town Sports & Entertainment Group to undertake an Air Quality Assessment to support the planning application for the proposed Accu Stadium Hotel, Huddersfield, HD1 6PG (the 'Application Site').

The proposals comprise the demolition of the existing leisure centre, construction of a hotel (with 141 rooms), alterations to the North Stand, and other associated works (the 'Proposed Development').

The baseline assessment shows that the Proposed Development is not located within an Air Quality Management Area (AQMA). Monitoring data shows that no exceedances of the annual mean nitrogen dioxide (NO<sub>2</sub>) Air Quality Objective (AQO) have been recorded in the baseline year of 2024 within 1 km of the Application Site. Additionally, Defra predicted background concentrations indicate that the annual mean NO<sub>2</sub> and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) AQOs are not expected to be exceeded in the local area.

The impacts of demolition and construction work on dust soiling and ambient fine particulate matter concentrations have been assessed and appropriate mitigation measures have been identified. Provided these mitigation measures are implemented and included within a Dust Management Plan, for example through a planning condition, the residual impacts are considered to be not significant.

The traffic generated by the Proposed Development has been screened against the criteria set-out in the Environmental Protection United Kingdom (EPUK) and Institute of Air Quality Management (IAQM) planning guidance to determine the need for a detailed assessment. This screening assessment has shown that the potential impact of additional road traffic on local air quality is considered insignificant and a detailed assessment is not required.

The energy strategy for the Proposed Development is primarily electric, utilising Air Source Heat Pumps (ASHPs) and Photovoltaic (PV) panels, both zero emission technologies. As no new combustion sources are proposed during normal operation, no local air quality impacts are anticipated and a detailed assessment of impacts of combustion emissions from the energy plant has been screened out of this assessment.

A qualitative site suitability assessment shows that pollutant concentrations are in compliance with the Air Quality Objectives (AQOs). Therefore, the Application Site is considered suitable for hotel use without mitigation.

Based on the assessment results, the Application Site is considered suitable for the Proposed Development without the inclusion of mitigation, air quality should not be considered as a constraint to the planning consent and the Proposed Development conforms to the principles of the National Planning Policy Framework, the Kirklees Local Plan 2019 and the West Yorkshire Low Emission Strategy (WYLES) Technical Guidance.

## 1. Introduction.

Hoare Lea have been commissioned by Town Sports & Entertainment Group to undertake an Air Quality Assessment to support the planning application for the proposed Accu Stadium Hotel, Huddersfield, HD1 6PG (the 'Application Site').

### 1.1 Proposed development.

The proposals comprise the demolition of the existing leisure centre, construction of a hotel (with 141 rooms), alterations to the North Stand, and other associated works (the 'Proposed Development').

The proposed energy strategy is primarily electric, utilising a centralised Air Source Heat Pump (ASHP) system at roof level and photovoltaic panels, both zero emission technologies. As no combustion sources are proposed for the primary energy supply, no local air quality impacts are anticipated and a detailed assessment of impacts of combustion emissions from the energy plant has been screened out of this assessment.

The proposed ventilation strategy will be provided through Air Handling Units (AHUs) at roof level, providing both guest rooms and communal areas.

### 1.2 Application site description and location.

The Application Site is located within the Kirklees Metropolitan Borough Council (KMBC) administrative area at the approximate National Grid Reference (NGR): X 415500 Y 417600. The Application Site is bound by car parks to the north; an Odeon cinema and undeveloped forested land to the east; and the Kirklees Accu Stadium to the south and west along with associated parking.

The Application Site is currently developed, housing a stadium leisure and business complex, with associated parking. Figure 1 illustrates the location of the Application Site.



Figure 1: Approximate location of the Application Site. Contains OS Data © Crown Copyright and Database rights 2026.

### **1.3 Scope of assessment.**

An email detailing the proposed methodology for the Air Quality Assessment was provided to the Environmental Health Officer (EHO) at KMBC on the 23<sup>rd</sup> of March 2026. A response was received from KMBC on the 23<sup>rd</sup> of March 2026 stating they do not provide pre-appointment advice. A copy of the correspondence with KMBC has been included in Appendix 1.

A summary of the scope of the assessment includes:

- Review of national and local policy;
- Determination of baseline scenario, using KMBC monitoring data;
- Assessment of potential air quality impacts during the construction phase;
- Assessment of potential air quality impacts during the operational phase;
- An assessment of the suitability of the Application Site for its proposed hotel use; and
- Identification of required mitigation measures, where necessary.

## 2. Legislation, policy and guidance documents.

### 2.1 Legislation.

The following legislation has informed the Air Quality Assessment and is detailed further in the Appendix 2:

- The Environment Act<sup>1,2</sup>
- The Air Quality Strategy<sup>3</sup>
- The Air Quality (England) Regulations 2000<sup>4</sup>
- The Air Quality (England) (Amendment) Regulations 2002<sup>5</sup>
- The Air Quality Standards Regulations 2010<sup>6</sup>
- The Air Quality Standards (Amendment) Regulations 2016<sup>7</sup>
- The Environmental Improvement Plan (EIP)<sup>8</sup>
- Part III of the Environmental Protection Act (EPA) 1990 (as amended)<sup>9</sup>
- The Clean Air Strategy (CAS)<sup>10</sup>
- Part F of the Building Regulations (2021)<sup>11</sup>

### 2.2 Policy.

The following policy has informed the Air Quality Assessment and is detailed further in the Appendix 2:

- The National Planning Policy Framework (NPPF) 2024<sup>12</sup>
- The Planning Practice Guidance (PPG)<sup>13</sup>

### 2.3 Guidance.

The following guidance has informed the Air Quality Assessment and is detailed further in the Appendix 2:

- Defra's Local Air Quality Management Technical Guidance<sup>14</sup> - This guidance will be referred to as 'LAQM.TG(22)' throughout this report.
- The Environmental Protection UK (EPUK) and the Institute of Air Quality Management's (IAQM) Air Quality Guidance for Planning<sup>15</sup> - This guidance will be referred to as 'EPUK and IAQM planning guidance' throughout this report.
- The IAQM 'Guidance on the assessment of dust from demolition and construction'<sup>16</sup> - This will be referred to as 'IAQM construction guidance' throughout this report.

### 2.4 Local policy and guidance.

In addition to the documents outlined in the previous sections above, Table 1 contains a summary of the local Policy and Guidance which are relevant to this assessment.

Table 1: Local policy and guidance documents.

| Local policy and guidance document                          | Summary notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Kirklees Local Plan                                         | Kirklees Local Plan Strategy and Policies 2019 is a statutory development plan, setting out policies to achieve the vision of the borough and guide new development up to 2031. The key policies relevant to this assessment are: <ul style="list-style-type: none"> <li>- LP51: Protection and improvement of local air quality;</li> <li>- LP20: Sustainable travel; and</li> <li>- LP47: Healthy, active and safe lifestyles.</li> </ul>                                                                                                                  |
| Kirklees Council Air Quality Strategy                       | The KMBC Air Quality Strategy <sup>17</sup> (AQS) 2019 summarises the information within the KMBC Air Quality Action Plan and Air Quality Annual Status Report and the policies in place to improve air quality in the borough. Proposals will be assessed both on exposure to air pollution and impact on air quality. This AQS has been considered within this assessment.                                                                                                                                                                                 |
| West Yorkshire Low Emissions Strategy                       | The West Yorkshire Combined Authority, which includes KMBC, adopted the West Yorkshire Low Emissions Strategy <sup>18</sup> in 2016. This strategy outlines key challenges to air quality in the region and how the combined authority intends to deliver a cleaner and healthier environment. The strategy primarily focuses on outlining schemes for cross-council transport management to reduce emissions from vehicles. This is supported by the West Yorkshire Combined Authority Air Quality & Emissions Technical Planning Guidance described below. |
| WYLES Air Quality and Emissions Technical Planning Guidance | The WYLES Technical Guidance <sup>19</sup> forms part of the Low Emissions Strategy to reduce road transport emissions in the combined West Yorkshire authority. The aim of the strategy is to help planning authorities deliver national Air Quality Objectives (AQOs).                                                                                                                                                                                                                                                                                     |
| Kirklees Air Quality Guidance                               | KMBC have given advice for developers through a planning application guidance document <sup>20</sup> to ensure that air quality impacts of new developments are adequately considered within the planning process. The information within this document has been considered in this report.                                                                                                                                                                                                                                                                  |

## 2.5 Air quality objectives.

The AQOs for nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) are set out in Table 2. The AQOs for NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> were to have been achieved by 2005, 2004 and 2020 respectively and continue to apply in all future years thereafter.

The AQOs apply at locations where members of the public are likely to be regularly present and exposed over the averaging period of the AQO. Examples of where the annual mean AQOs should apply are provided in the LAQM.TG(22), and include building façades of residential properties, schools, hospitals. The annual mean AQOs are not relevant for the building façades of offices or other places of work where members of the public do not have regular access, as well as kerbsides or gardens.

The 24-hour mean AQO for PM<sub>10</sub> is considered to apply at the same locations as the annual mean AQO, as well as in gardens of residential properties and at hotels.

The 1-hour mean AQO for NO<sub>2</sub> also applies wherever members of the public might regularly spend 1-hour or more, including outdoor eating locations, pavements of busy shopping streets, carparks and bus stations which are not fully enclosed. The 1-hour mean AQO does not apply at kerbside sites where the public do not have regular access.

Table 2: Air Quality Objectives for NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>.

| Pollutant                                                                                                                                                                     | Time Period  | Objective                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------|
| Nitrogen Dioxide (NO <sub>2</sub> )                                                                                                                                           | 1-hour Mean  | 200 µg/m <sup>3</sup> Not to be exceeded more than 18 times a year |
|                                                                                                                                                                               | Annual Mean  | 40 µg/m <sup>3</sup>                                               |
| Fine Particles (PM <sub>10</sub> )                                                                                                                                            | 24-hour Mean | 50 µg/m <sup>3</sup> Not to be exceeded more than 35 times a year  |
|                                                                                                                                                                               | Annual Mean  | 40 µg/m <sup>3</sup>                                               |
| Fine Particles (PM <sub>2.5</sub> ) *                                                                                                                                         | Annual Mean  | 20 µg/m <sup>3</sup>                                               |
| Notes:<br>Measured gravimetrically<br>*The time period in LAQM.TG(22) states "Work towards reducing emissions/concentrations of fine particulate matter (PM <sub>2.5</sub> )" |              |                                                                    |

In December 2025, Defra updated the EIP PM<sub>2.5</sub> interim targets. They are as follows:

- An annual mean concentration target of 10 micrograms per cubic metre to be achieved by December 2030.
- A population exposure reduction target of 30% compared to 2018 to be achieved by December 2030.

This target has been put in place to focus on reducing concentrations of, and exposure to, PM<sub>2.5</sub>.

## 3. Methodology of assessment.

### 3.1 Existing air quality in the study area.

A baseline air quality review was undertaken to determine the existing air quality in the vicinity of the Application Site.

This desk-top study was undertaken using the following sources:

- Air quality data for KMBC, including a review of the latest KMBC air quality reports<sup>21</sup> and local monitoring data.
- The UK Pollutant Release and Transfer Register<sup>22</sup>.
- Background pollution maps from Defra's Local Air Quality Management (LAQM) website<sup>23</sup>.
- Pollution Inventory from the Environment Agency<sup>24</sup>.
- The UK Ambient Air Quality Interactive Map<sup>25</sup>.
- Ordnance Survey data and Aerial photography from Google Maps.

### 3.2 Construction phase impacts.

#### 3.2.1 Construction dust assessment.

The assessment of construction dust impacts has been undertaken in line with the methodology outlined in the IAQM construction guidance. Activities on the proposed construction site have been divided into four types to reflect their different potential impacts. These are:

- Demolition
- Earthworks
- Construction
- Trackout

The risk of dust emissions was assessed for each activity with respect to:

- Potential loss of amenity due to dust soiling;
- The risk of health effects due to a significant increase in exposure to PM<sub>10</sub>; and
- The risk of ecological impacts due to a significant increase in exposure to dust.

The first stage of the assessment involves screening to determine whether there are any sensitive receptors within the threshold distances defined by the IAQM construction guidance. A detailed assessment of the impact of dust from construction sites will be required where:

- A 'human receptor' is located within 250 m of the boundary of the Application Site or within 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the Application Site entrance;
- An 'ecological receptor' is located within 50 m of the boundary of the Application Site or within 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the Application Site entrance.

The magnitude of dust emission for each activity is determined on the basis of the guidance, indicative thresholds, information available relating to the project and expert judgement. The risk of dust effects arising is based upon the relationship between the dust emission magnitude and the sensitivity of the area. The risk of impact is then used to determine the mitigation requirements.

#### 3.2.2 Construction emissions assessment.

##### 3.2.2.1 Construction traffic emissions screening.

The screening assessment has been undertaken with reference to the following EPUK and IAQM planning guidance indicative criteria:

- a change of Light Duty Vehicle (LDV) flows of more than 500 Annual Average Daily Traffic (AADT) (outside an Air Quality Management Area (AQMA)); and/or

- a change of Heavy-Duty Vehicle (HDV) flows of more than 100 AADT (outside an AQMA).

#### 3.2.2.2 NRMM emissions screening.

Non-Road Mobile Machinery (NRMM) refers to mobile machines, transportable industrial equipment or vehicles which are fitted with an internal combustion engine and not intended for transporting goods or passengers on roads. NRMM emissions have been screened following IAQM construction guidance.

### 3.3 Operational phase impacts.

#### 3.3.1 Road traffic emissions assessment.

The screening assessment has been undertaken following the EPUK and IAQM planning guidance indicative criteria:

- a change of LDV flows of more than 500 AADT (outside an AQMA); and/or
- a change of HDV flows of more than 100 AADT (outside an AQMA).

Where these criteria are exceeded, a detailed assessment is required, although the guidance advises that “*the criteria provided are precautionary and should be treated as indicative*”, and “*it may be appropriate to amend them on the basis of professional judgement*”.

Where impacts can be screened out there is no need to progress to a more detailed assessment.

#### 3.3.2 Site suitability assessment.

An assessment has been undertaken to consider the site suitability which refers to the exposure of future occupants of the Proposed Development to existing air quality.

The assessment of site suitability will be assessed qualitatively using monitoring data and Defra predicted background concentrations in the vicinity of the Application Site.

### 3.4 Assessment of significance.

#### 3.4.1 Construction dust.

The IAQM construction guidance states that the primary aim of the construction phase risk assessment is to identify site specific mitigation that, once implemented, should ensure that there will be no significant effect. Therefore, the assessment has been used to determine an appropriate level of mitigation for the construction phase.

The determination of which mitigation measures are recommended include elements of professional judgement and the professional experience of the consultants preparing this report is set out in Appendix 4.

#### 3.4.2 Operational impacts.

The EPUK and IAQM planning guidance has been used to assess the potential for significant impacts as a result of vehicle emissions from traffic associated with the Proposed Development. The focus of the guidance is to assess traffic emission impacts and advises on how to describe the air quality impacts and their significance.

#### 3.4.3 Site suitability assessment.

To determine the significance of predicted air quality impacts based upon a site suitability assessment, the EPUK and IAQM planning guidance states: “*Where the air quality is such that an air quality objective at the building façade is not met, the effect on residents or occupants will be judged as significant, unless provision is made to reduce their exposure by some means.*”

As the Proposed Development includes hotel usage, the NO<sub>2</sub> 1-hour mean AQO and the PM<sub>10</sub> 24-hour mean AQO are applicable. However, the long-term NO<sub>2</sub> AQO has also been considered for the Proposed Development in order to predict compliance with Approved Document Part F of the Buildings Regulations (2021).

## 4. Baseline environment.

This section sets out the available information on air quality in the vicinity of the Application Site.

### 4.1 Local air quality management review and assessment.

The Application Site is not located within an AQMA. The closest AQMA to the Application Site is titled Kirklees AQMA 9, located approximately 0.7 km south west of the Application Site. AQMA 9 was declared in 2017 due to exceedances of the annual mean NO<sub>2</sub> AQO. The location of the AQMA in relation to the Application Site is displayed in Figure 2.

According to the most recent KMBC air quality Annual Status Report<sup>21</sup> (ASR) (2025), the primary source of air pollution in the area is considered to be emissions from road transport as well as industrial and household combustion.

### 4.2 Local air quality monitoring.

KMBC operated one automatic monitoring station in 2024, and the neighbouring administrative area, Calderdale Council (CC) located 3.2 km to the north of the Application Site, operated three. However, as the nearest automatic monitoring station is within CC, located 8.3 km from the Application Site, automatic monitoring data has not been included.

KMBC operated 137 passive diffusion tubes to monitor NO<sub>2</sub> concentrations in 2024. A review of the most recent monitoring data available indicated that there are three passive diffusion tube monitoring locations within 1 km of the Application Site. Recent monitoring results are shown in Table 3 and the passive diffusion tube monitoring locations are illustrated in Figure 2.

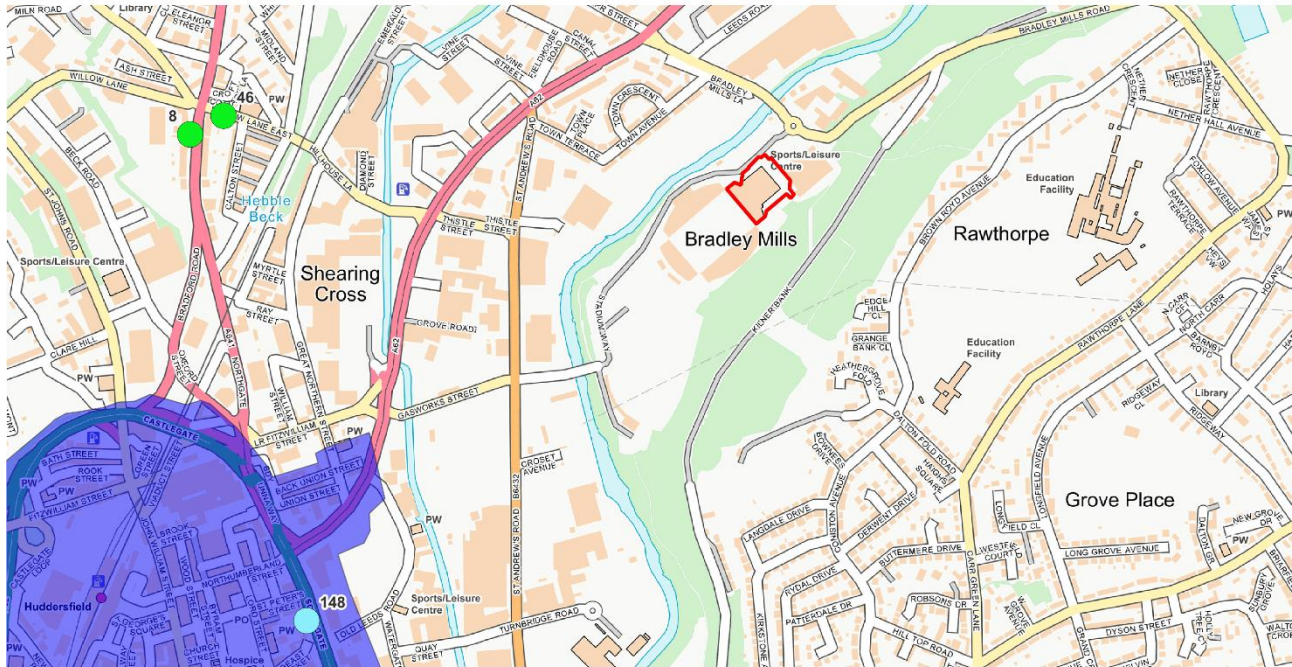
Table 3: Passive diffusion tube monitoring results.

| Site ID                 | Site Type | Site Name             | Distance (km) from site (approx.) | Annual Mean NO <sub>2</sub> Concentration (µg/m <sup>3</sup> ) |      |      |      |      |
|-------------------------|-----------|-----------------------|-----------------------------------|----------------------------------------------------------------|------|------|------|------|
|                         |           |                       |                                   | 2020                                                           | 2021 | 2022 | 2023 | 2024 |
| 46                      | Roadside  | 1 Willow Lane East    | 0.8                               | 29                                                             | 23   | 21   | 31   | 33   |
| 8                       | Roadside  | Bradford Road Fartown | 0.9                               | 31                                                             | 33   | 33   | 31   | 31   |
| 148                     | Roadside  | 5 Southgate           | 1.0                               | -                                                              | -    | -    | -    | 30   |
| Notes:<br>“-“ = no data |           |                       |                                   |                                                                |      |      |      |      |

As shown in Table 3 above, there were no exceedances of the NO<sub>2</sub> annual mean AQO in the vicinity of the Application Site in the baseline year of 2024.

As outlined in the LAQM.TG(22), an annual mean concentration of 60 µg/m<sup>3</sup> or above is often used to indicate a possible exceedance of the 1-hour mean NO<sub>2</sub> AQO. In the baseline year of 2024, none of the passive diffusion tubes within a 1 km vicinity of the Application Site have recorded an exceedance of 60 µg/m<sup>3</sup> and therefore, no exceedance of the 1-hour mean NO<sub>2</sub> AQO is expected.

0 100 200 300 400 m



Legend

- Approximate Application Site Boundary  
  Passive Diffusion Tube  
● 0 - 10  
● 10 - 20  
● 20 - 30  
● 30 - 40  
● 40 - 50  
● 50 - 60  
● 60 - 99

Figure 2: Monitoring locations within the vicinity of the Application Site. Contains OS Data © Crown Copyright and Database rights 2026.

### 4.3 Industrial pollution.

A desk-based review of potential industrial sources using the UK Pollutant Release and Transfer Register and the Pollution Inventory from the Environment Agency identified two potential industrial or waste management sources of air pollution within 2 km of the Application Site that may affect the Application Site with regard to air quality. These are presented in Table 4.

Table 4: Industrial/waste management sources of air pollution within 2 km of the Application Site.

| Source Name                              | Distance from Application Site | Source Type                                                      | Permit Number | Air Pollutant Release                                              |
|------------------------------------------|--------------------------------|------------------------------------------------------------------|---------------|--------------------------------------------------------------------|
| Suez Recycling and Recovery Kirklees Ltd | 0.6 km                         | Incineration of non-hazardous waste                              | EPR/BJ6178IX  | Emissions to air of relevant pollutants managed by existing permit |
| W.T. Johnson & Sons Ltd.                 | 1.3                            | Directly Associated Activity (Including Medium Combustion Plant) | EPR/QP3538XB  | Emissions to air of relevant pollutants managed by existing permit |

As indicated in Table 4, all potential industrial and waste management sources of air pollution in the vicinity of the Application Site have all recorded no pollutant releases or are controlled by environmental levels. As such, industrial pollution is not anticipated to have a significant impact on air quality at the Application Site.

#### 4.4 Defra predicted concentrations.

The background concentrations have been obtained from the national maps published by Defra. These estimated concentrations are produced on a 1 km by 1 km grid basis for the whole of the UK. The Application Site falls into grid square X 415500 Y 417500 and the predicted concentrations for this grid square for NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> are provided in Table 5 for 2024, the most recent year with available monitoring data; 2026, the current year; and for 2028, the earliest anticipated opening year for the Proposed Development.

Table 5: Predicted background concentrations for grid square X 415500 Y 417500.

| Year | Predicted Background Concentration (µg/m <sup>3</sup> ) |                  |                   |
|------|---------------------------------------------------------|------------------|-------------------|
|      | NO <sub>2</sub>                                         | PM <sub>10</sub> | PM <sub>2.5</sub> |
| 2024 | 13.4                                                    | 11.3             | 6.9               |
| 2026 | 12.7                                                    | 11.2             | 6.8               |
| 2028 | 12.1                                                    | 11.1             | 6.7               |

As shown in Table 5, background concentrations are below the relevant AQOs for all pollutants.

#### 4.5 Summary of background data.

The baseline assessment has shown that the Application Site is not located within an AQMA.

Monitoring data in the vicinity of the Application Site shows that no exceedances of the annual mean NO<sub>2</sub> AQO has been recorded in the baseline year of 2024. There is no PM<sub>10</sub> or PM<sub>2.5</sub> monitoring available within the vicinity of the Application Site.

The Defra predicted background concentrations indicate that the annual mean NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> AQOs are anticipated to be met at the Application Site in 2024, 2026 and 2028.

There are no industrial or waste management sources expected to influence the Application Site in regard to air quality.

## 5. Construction phase assessment.

The potential for air quality impacts during the construction of the Proposed Development are assessed in this section.

### 5.1 Construction phase dust assessment.

The risk of dust impacts is based on the potential dust emissions magnitude and the sensitivity of the area. These two factors are then combined to determine the risk of dust impacts with no mitigation applied. In the absence of any site-specific information, a higher risk category has been applied to represent a worst-case scenario.

#### 5.1.1 Assessment screening.

There are 'human receptors' within 250 m of the Application Site but no designated habitat sites within 50 m of the Application Site boundary or within 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the Application Site entrance.

The closest ecological receptor to the Application Site is Dalton Bank, classified as a Local Nature Reserve (LNR), located approximately 1.7 km to the north east.

Therefore, an assessment of construction dust at human receptors is required, but an assessment of construction at ecological receptors can be screened out from this assessment.

#### 5.1.2 Potential dust emission magnitude.

The potential magnitude of dust emissions from demolition, earthworks, construction and trackout have been assessed, as identified in Table 6.

Table 6: Predicted magnitude of dust emissions.

| Activity     | Magnitude | Justification                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Demolition   | Medium    | The volume of demolition has been confirmed by Buttress, the appointed Architect, to be approximately 16,800 m <sup>3</sup> , which falls into the medium magnitude (12,000 m <sup>3</sup> – 75,000 m <sup>3</sup> ) within the IAQM guidelines. The materials of the existing buildings are unknown at the time of writing this report. The dust emission magnitude with regard to demolition has been classified as medium. |
| Earthworks   | Small     | The total area of the Application Site is less than 18,000 m <sup>2</sup> . The soil type is 'loamy' and 'clayey', which is a potentially dusty soil type when reviewed using Soilscape <sup>26</sup> . Therefore, the dust emission magnitude with respect to earthworks is small.                                                                                                                                           |
| Construction | Medium    | The volume of construction is confirmed to be between 12,000 m <sup>3</sup> – 75,000 m <sup>3</sup> . The primary building materials are anticipated to be metal cladding and glass which have a low potential for dust emission. As such, the dust emission magnitude for construction is classed as medium.                                                                                                                 |
| Trackout     | Small     | Outward trips of HDVs during the construction phase were not available at the time of writing this report. The Application Site is developed, and therefore there is unlikely to be any unpaved road. Subsequently, the magnitude of trackout dust emissions has been classified as small.                                                                                                                                    |

#### 5.1.3 Sensitivity of the study area.

The sensitivity of the area takes into account the following factors:

- The specific sensitivities of receptors in the area;

- The proximity and number of those receptors;
- In the case of PM<sub>10</sub>, the local background concentration; and
- Site-specific factors, such as whether there are natural shelters, such as trees or other vegetation, to reduce the risk of wind-blown dust.

Figure 3 illustrates the distance band criteria (sensitivity buffers) from the Application Site boundary.

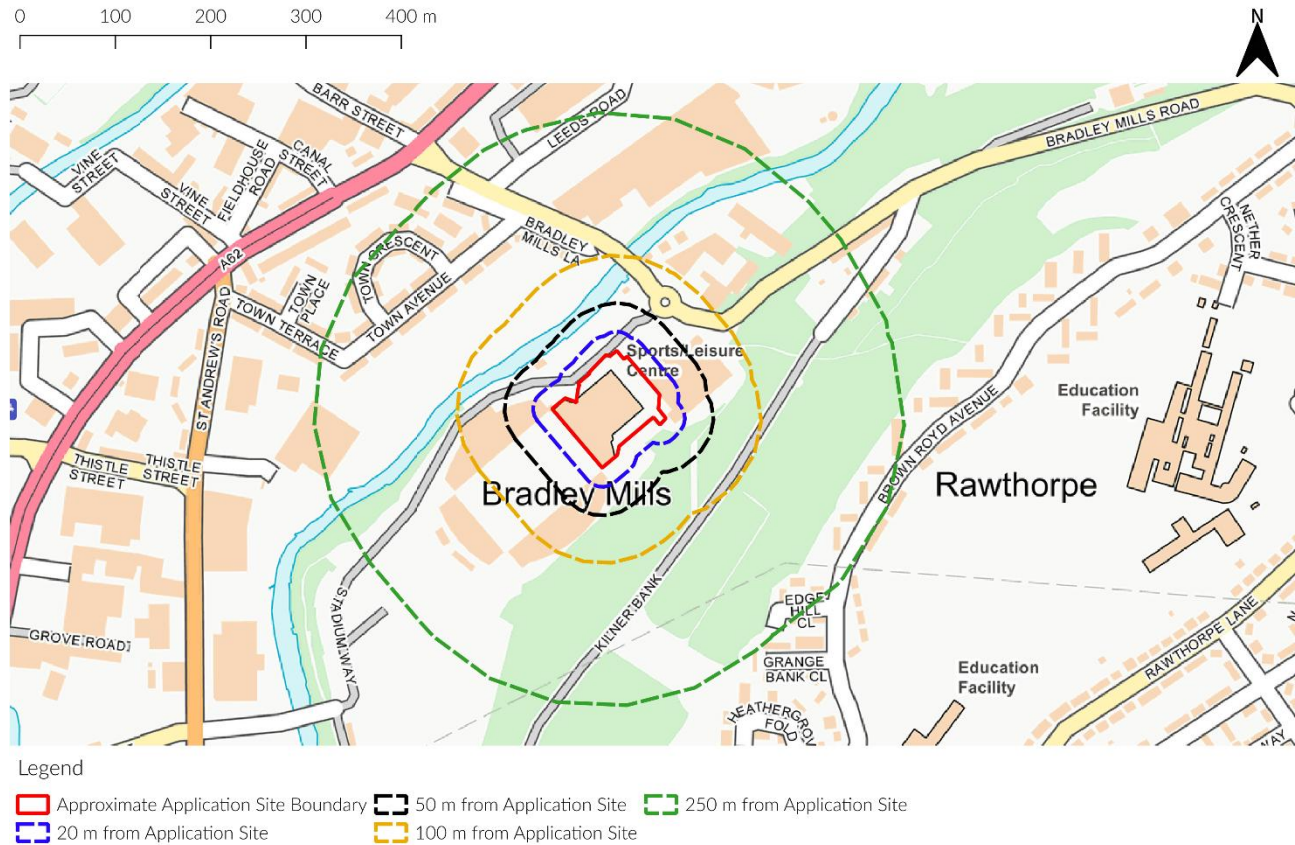


Figure 3: Demolition and construction dust distance band criteria from the Application Site boundary. Contains Ordnance Survey Data © Crown Copyright 2026.

The sensitivity of the area and the factors considered are detailed in Table 7.

Table 7: Sensitivity of the area.

| Sensitivity Type | Factors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Sensitivity of Area |          |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|
|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | On – Site Activity  | Trackout |
| Dust Soiling     | There are over 100 medium sensitivity receptors within 20 m of the Application Site, in the form of the Accu Stadium and Odeon Cinema as well as the associated parking at these locations. Other receptors up to 250 m have also been considered in this assessment. The sensitivity of the area surrounding the Application Site has therefore been classified as medium sensitivity. For Trackout, the distances are measured within 50 m from the sides of the roads up to 250 m from the Application Site along anticipated routes used by construction traffic. Within 20 m of these roads, there | Medium              | Medium   |

| Sensitivity Type | Factors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Sensitivity of Area |          |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|
|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | On – Site Activity  | Trackout |
|                  | are 1 – 10 high sensitivity receptors, in the form of residential dwellings along Bradley Mills Road. Therefore, the sensitivity of the surrounding area with respect to dust soiling for trackout has been classified as medium.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |          |
| Human Health     | <p>The background concentration of PM<sub>10</sub> in the vicinity of the Application Site is predicted to be less than 24 µg/m<sup>3</sup>. There are over 100 medium sensitivity receptors within 20 m of the Application Site, including visitors to the Accu Stadium and Odeon cinema. However, based on the Defra predicted backgrounds displayed in Table 5, the PM<sub>10</sub> concentration is below 24 µg/m<sup>3</sup>. As such, the sensitivity of the area surrounding the Application Site has been classified as low sensitivity with respect to human health.</p> <p>For Trackout, the distances are measured within 50 m from the sides of the roads up to 250 m from the Application Site along anticipated routes used by construction traffic. Within 20 m of these roads, there are between 1 – 10 high sensitivity receptors in the form of the residential dwellings. As the PM<sub>10</sub> concentration is below 24 µg/m<sup>3</sup>, the sensitivity of the area surrounding the Application Site, with respect to human health impacts for trackout has been classified as low.</p> | Low                 | Low      |

#### 5.1.4 Risk of dust impacts

The outcome of the assessments of potential magnitude of dust emissions and the sensitivity of the area are combined to determine the risk of impact. This risk is then used to inform the selection of appropriate mitigation. Table 8 details the risk of dust impacts for demolition, earthworks, construction and trackout activities.

Table 8: Summary of potential unmitigated dust risks.

| Potential Impact     | Sensitivity |          | Demolition  | Earthworks | Construction | Trackout   |
|----------------------|-------------|----------|-------------|------------|--------------|------------|
|                      | On-site     | Trackout |             |            |              |            |
| Magnitude            |             |          | Medium      | Small      | Medium       | Small      |
| Dust Soiling Impacts | Medium      |          | Medium Risk | Low Risk   | Medium Risk  | Low Risk   |
| Human Health Impacts | Low         |          | Low Risk    | Negligible | Low Risk     | Negligible |

#### 5.2 Construction phase – vehicular pollutants.

The Proposed Development is not located within or adjacent to an AQMA and therefore the less stringent screening criteria (i.e. 500 LDV and 100 HDV) would apply.

Information on traffic movements anticipated during construction works was unavailable for the completion of the Air Quality Assessment. However, the development quantum is not anticipated to result in a significant increase in movements above the threshold outlined in the EPUK and IAQM planning guidance. The duration of movements will be short-term in nature and are not considered further within the context of this assessment. Therefore, in accordance with the criteria presented within EPUK and IAQM planning guidance, additional road vehicle trips during the construction phase of the Proposed Development “*can be considered to have insignificant effects*” on air quality.

### **5.3 Construction phase – non-road mobile machinery.**

Pollutants emitted by NRMM that may have the most significant potential effects on local air quality are PM<sub>10</sub>, PM<sub>2.5</sub> and NO<sub>x</sub>/NO<sub>2</sub>. Typically, NRMM is associated with construction sites and, therefore there is a potential for NRMM emissions to adversely affect local air quality as a result of the Proposed Development.

IAQM construction guidance states that, with the application of suitable control measures and site management, exhaust emissions from on-site NRMM are “*unlikely to make a significant impact on local air quality. In the vast majority of cases, they will not need to be quantitatively assessed*”.

## 6. Operational phase assessment.

The potential for air quality impacts during the operation of the Proposed Development are assessed in this section.

### 6.1 Road traffic emissions screening assessment.

Road traffic data associated with the Proposed Development has been provided by Leaf Hospitality. The traffic flows indicate that there will be a weekly increase of 10 LDV and 20 HDVs on the local road network as a result of the Proposed Development. This is below the indicative criteria in the EPUK and IAQM planning guidance of a change of more than 500 LDV AADT and/or 100 HDV AADT outside an AQMA and therefore no further assessment is required.

In accordance with the EPUK and IAQM planning guidance, the impacts on air quality from operational phase traffic generation are considered to be not significant.

### 6.2 Site suitability assessment.

This section presents a review of KMBC monitoring data and Defra predicted background concentrations in the vicinity of the Application Site, for the purpose of identifying the suitability of the Application Site for hotel use and identify any requirements for potential mitigation to be embedded into the Proposed Development design.

As presented in Section 3.3.2 in line with LAQM.TG(22), the short-term 1-hour mean AQO is applicable for hotel use. However, the long-term NO<sub>2</sub> AQO has also been considered for the Proposed Development in order to predict compliance with Approved Document Part F of the Buildings Regulations (2021). The 24-hour mean PM<sub>10</sub> AQO is also relevant for hotel use.

#### 6.2.1 NO<sub>2</sub> concentrations

A review of the annual mean NO<sub>2</sub> concentrations monitored within 1 km of the Application Site has been completed as part of the baseline review with recent monitoring results, presented in Figure 2 and Table 3.

The Proposed Development is set back from the nearest road and is located within an existing car park that is operated by the stadium. Diffusion tube 46 represents a worst-case scenario of pollutant concentrations experienced at the Application Site. Both the Application Site and DT46 are located outside the Kirklees AQMA. DT46 is located at the roadside, approximately 2 m south of Willow Lane East Road and 30 m west of the junction with the A461. This diffusion tube is expected to experience more pollution due to traffic and congestion as a result of the junction, in comparison to the Application Site which is accessed through a roundabout.

DT46 recorded an annual mean NO<sub>2</sub> concentration of 33 µg/m<sup>3</sup> (approximately 83% of the annual mean AQO) in the baseline year of 2024. The Application Site is set back 70 m from Bradley Mills Road. As pollutant concentrations reduce with increasing distance from the pollution source, concentrations at the Proposed Development are anticipated to be less than those experienced at DT46. Additionally, all Defra background concentrations are below the relevant AQOs in the grid square the Application Site is located.

As outlined in LAQM.TG(22), an annual mean concentration of 60 µg/m<sup>3</sup> or above is often used to indicate a possible exceedance of the 1-hour mean NO<sub>2</sub> AQO, therefore 60 µg/m<sup>3</sup> has been used as an Air Quality Assessment Level (AQAL) for the 1-hour mean NO<sub>2</sub> AQO. As no monitoring location within 1 km experienced an NO<sub>2</sub> concentration over 60 µg/m<sup>3</sup>, the 1-hour mean AQO is not expected to be exceeded at the Application Site.

Therefore, NO<sub>2</sub> concentrations in the locale of the Proposed Development are considered to be compliant with the annual and 1-hour mean AQOs and the Application Site is considered suitable for hotel use without the need for mitigation.

#### 6.2.2 PM<sub>10</sub> concentrations

KMBC and CC do not operate any automatic monitoring locations that are representative of the Application Site. Defra's predicted background concentration at the Application Site is 11.1 µg/m<sup>3</sup> (28 % of the annual

AQO). In line with LAQM.TG(22), the annual mean PM<sub>10</sub> concentration is expected to be below 14.8 µg/m<sup>3</sup> at the Application Site, and as such, exceedances of the 24-hour mean AQO are not considered likely.

### 6.2.3 Significance of air quality impacts

To determine the significance of predicted air quality impacts based upon a site suitability assessment, such as that undertaken as part of this assessment, the EPUK and IAQM planning guidance states:

*“Where the air quality is such that an air quality objective at the building façade is not met, the effect on residents or occupants will be judged as significant, unless provision is made to reduce their exposure by some means.”*

With regards to the Proposed Development, the unmitigated impact significance associated with the Proposed Development has been predicted in accordance with the stated assessment methodology.

The Proposed Development will not introduce any new receptor into an area of exceedance of the annual and 1-hour mean NO<sub>2</sub> AQOs or the 24-hour mean PM<sub>10</sub> AQO based upon a review of NO<sub>2</sub> monitoring data and Defra predicted background concentrations within the development locale.

As no exceedances of the considered AQOs are predicted, mitigation measures are not required for the operational phase of the Proposed Development. As such, the overall effect is considered to be ‘not significant’.

## 7. Mitigation.

### 7.1 Construction phase.

To mitigate the potential impacts during the construction phase it is recommended that mitigation measures as detailed in the IAQM construction guidance are implemented.

It is recommended that KMBC approve a Dust Management Plan (DMP) prior to works commencing on site, and that this is implemented using an appropriately worded planning condition. Table 11, in Appendix 3, details the measures that should be incorporated in the DMP.

These mitigation measures have been selected for the Proposed Development and are based upon the dust risk categories outlined in Table 8 of this report. For general mitigation measures, which exclude those specifically targeted towards demolition, earthworks, construction and trackout (which are given towards the end of the table), medium risk measures have been applied as these represent the highest risk category determined in Table 8. This approach is consistent with the IAQM construction guidance.

It should be noted that potential dust effects during the construction phase are considered to be temporary and short term in nature. The impacts are determined to be temporary as they will only potentially occur throughout the construction phase and short-term because these will only arise at particular times when certain activities and meteorological conditions combine to create the predicted level of magnitude.

However, with the application of the dust control and mitigation measures outlined in Appendix 3, it is considered that impacts at all receptors will be 'not significant' in accordance with the IAQM construction guidance.

#### 7.1.1 Construction phase road traffic emissions

Potential air quality impacts associated with construction phase road traffic emissions, principally HDV movements, have been screened out for further assessment with associated impacts on air quality predicted to result in an 'insignificant' effect. Therefore, mitigation measures are not considered to be required.

#### 7.1.2 Construction phase NRMM emissions

In accordance with Part 4 of the IAQM construction guidance, all NRMM would need to adhere to the emissions standards for NO<sub>2</sub> and PM<sub>10</sub> set out for NRMM. It is therefore considered the likely effects of construction plant on local air quality would be insignificant.

### 7.2 Operational phase.

#### 7.2.1 Road traffic emissions

Potential air quality impacts associated with operational phase development trips have been screened out from further assessment as '*the impacts [on air quality from operational phase movements] can be considered to have insignificant effects*' in accordance with the EPUK and IAQM planning guidance. Therefore, additional mitigation measures are not considered to be required, with regards to road traffic emissions.

#### 7.2.2 Site suitability assessment

A review of KMBC monitoring data in consideration of the Application Site, and mapped concentrations by Defra in the locale of the Application Site, indicates no likely exceedance of the annual and 1-hour mean NO<sub>2</sub> AQOs or the 24-hour mean PM<sub>10</sub> AQO.

As no exceedances of any considered AQOs are predicted, this follows the 1<sup>st</sup> hierarchy principle of the EPUK and IAQM planning guidance to '*prevent and avoid* exposure'. Therefore, no additional mitigation into the Proposed Development design is required and natural ventilation is possible from an air quality perspective.

## 8. Summary and conclusions.

This report details the potential air quality impacts associated with the construction and operation of a proposed hotel at Accu Stadium, Huddersfield.

The findings of the assessment are as follows:

- The baseline assessment has shown that the Proposed Development is not located within an AQMA. There were no exceedances of the 1-hour mean NO<sub>2</sub> AQO in the vicinity of the Application Site. Additionally, 2024 Defra predicted background concentrations are below the relevant AQOs for NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> concentrations.
- A qualitative assessment of the potential dust impacts during the construction of the Proposed Development has been undertaken. Through good practice and implementation of appropriate mitigation measures, it is expected that the release of dust would be effectively controlled and mitigated, with resulting impacts considered to be 'not significant'. All dust impacts are considered to be temporary and short-term in nature;
- Traffic generated by the Proposed Development is below the screening criteria set out in the IAQM and EPUK planning guidance and the effects are not predicted to be significant, therefore further assessment is not required;
- The Proposed Development primary energy strategy is electric, utilising ASHPS and PVs. As no combustion sources are proposed for the primary energy supply, no local air quality impacts are anticipated and a detailed assessment of impacts of combustion emissions from the energy plant has been screened out of this assessment;
- A qualitative site suitability assessment has shown that there are no predicted exceedances of the relevant AQOs at the Application Site. Therefore, the Application Site is considered Suitable for the proposed hotel use without mitigation.

Based on the information above, it is considered that air quality should not be viewed as a constraint to planning and the Proposed Development conforms to the principles of the National Planning Policy Framework, the Kirklees Local Plan 2019 and the WYLES Technical Guidance.

## Glossary of terms.

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AADT                     | Annual Average Daily Traffic                                                                                                                                                                                                                                                                                                                                                                                                        |
| AHU                      | Air Handling Unit                                                                                                                                                                                                                                                                                                                                                                                                                   |
| AQAP                     | Air Quality Action Plan                                                                                                                                                                                                                                                                                                                                                                                                             |
| AQDMP                    | Air Quality Dust Management Plan                                                                                                                                                                                                                                                                                                                                                                                                    |
| AQMA                     | Air Quality Management Area                                                                                                                                                                                                                                                                                                                                                                                                         |
| AQO                      | Air Quality Objective                                                                                                                                                                                                                                                                                                                                                                                                               |
| ASHP                     | Air Source Heat Pump                                                                                                                                                                                                                                                                                                                                                                                                                |
| ASR                      | Annual Status Report                                                                                                                                                                                                                                                                                                                                                                                                                |
| CC                       | Calderdale Council                                                                                                                                                                                                                                                                                                                                                                                                                  |
| DMP                      | Dust Management Plan                                                                                                                                                                                                                                                                                                                                                                                                                |
| Defra                    | Department for Environment, Food and Rural Affairs                                                                                                                                                                                                                                                                                                                                                                                  |
| EIP                      | Environmental Improvement Plan                                                                                                                                                                                                                                                                                                                                                                                                      |
| EPA                      | Environment Protection Act                                                                                                                                                                                                                                                                                                                                                                                                          |
| EPUK                     | Environmental Protection UK                                                                                                                                                                                                                                                                                                                                                                                                         |
| HDV                      | Heavy Duty Vehicles (> 3.5 tonnes gross vehicle weight)                                                                                                                                                                                                                                                                                                                                                                             |
| IAQM                     | Institute of Air Quality Management                                                                                                                                                                                                                                                                                                                                                                                                 |
| KMBC                     | Kirklees Metropolitan Borough Council                                                                                                                                                                                                                                                                                                                                                                                               |
| LAQM                     | Local Air Quality Management                                                                                                                                                                                                                                                                                                                                                                                                        |
| LDV                      | Light Duty Vehicles ( $\leq$ 3.5 tonnes gross vehicle weight)                                                                                                                                                                                                                                                                                                                                                                       |
| $\mu\text{g}/\text{m}^3$ | Micrograms per cubic metre                                                                                                                                                                                                                                                                                                                                                                                                          |
| NGR                      | National Grid Reference                                                                                                                                                                                                                                                                                                                                                                                                             |
| $\text{NO}_2$            | Nitrogen dioxide                                                                                                                                                                                                                                                                                                                                                                                                                    |
| $\text{NO}_x$            | Nitrogen oxides (taken to be $\text{NO}_2 + \text{NO}$ )                                                                                                                                                                                                                                                                                                                                                                            |
| NPPF                     | National Planning Policy Framework                                                                                                                                                                                                                                                                                                                                                                                                  |
| NRMM                     | Non-Road Mobile Machinery                                                                                                                                                                                                                                                                                                                                                                                                           |
| Objectives               | A nationally defined set of health-based concentrations for nine pollutants, seven of which are incorporated in Regulations, setting out the extent to which the standards should be achieved by a defined date. There are also vegetation-based objectives for sulphur dioxide and nitrogen oxides                                                                                                                                 |
| $\text{PM}_{10}$         | Particulate matter with an aerodynamic diameter less than 10 micrometres                                                                                                                                                                                                                                                                                                                                                            |
| $\text{PM}_{2.5}$        | Particulate matter with an aerodynamic diameter less than 2.5 micrometres                                                                                                                                                                                                                                                                                                                                                           |
| PPG                      | Planning Practice Guidance                                                                                                                                                                                                                                                                                                                                                                                                          |
| SPG                      | Supplementary Planning Guidance                                                                                                                                                                                                                                                                                                                                                                                                     |
| Standards                | A nationally defined set of concentrations for nine pollutants below which health effects do not occur or are minimal                                                                                                                                                                                                                                                                                                               |
| Trackout                 | The transport of dust and dirt from the construction / demolition site onto the public road network, where it may be deposited and then re-suspended by vehicles using the network. This arises when heavy duty vehicles (HDVs) leave the construction / demolition site with dusty materials, which may then spill onto the road, and/or when HDVs transfer dust and dirt onto the road having travelled over muddy ground on site |
| WYLES                    | West Yorkshire Low Emission Strategy                                                                                                                                                                                                                                                                                                                                                                                                |

## References.

- <sup>1</sup> The Stationery Office (1995) The Environment Act 1995 (Part IV), London
- <sup>2</sup> The Stationery Office (2021) Statutory Instrument 2021, The Environment Act 2021, London
- <sup>3</sup> Defra (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland – [online] (Last accessed: 14/03/2026), Available at: [www.gov.uk/government/publications/the-air-quality-strategy-for-england-scotland-wales-and-northern-ireland-volume-1](http://www.gov.uk/government/publications/the-air-quality-strategy-for-england-scotland-wales-and-northern-ireland-volume-1)
- <sup>4</sup> The Stationery Office (2000) Statutory Instrument 2000, No 928, The Air Quality (England) Regulations 2000, London
- <sup>5</sup> The Stationery Office (2002) Statutory Instrument 2002, No 3043, The Air Quality (England) (Amendment) Regulations 2002, London
- <sup>6</sup> The Stationery Office (2010) Statutory Instrument 2010, No 1001, The Air Quality Standards Regulations 2010, London
- <sup>7</sup> The Stationery Office (2016) Statutory Instrument 2016, No 1184, The Air Quality Standards (Amendment) Regulations 2016, London
- <sup>8</sup> Department for Environment, Food & Rural Affairs (2025) Environmental Improvement Plan 2025 – [online], (Last accessed: 14/03/2026), Available at: <https://www.gov.uk/government/publications/environmental-improvement-plan-2025/environmental-improvement-plan-eip-2025>
- <sup>9</sup> The Stationery Office (1990) Environmental Protection Act 1990 – [online] (Last accessed: 14/03/2026), Available at: [legislation.gov.uk/ukpga/1990/43/part/III](http://legislation.gov.uk/ukpga/1990/43/part/III)
- <sup>10</sup> Defra (2019) The Clean Air Strategy – [online] (Last accessed: 14/03/2026), Available at: [www.gov.uk/government/publications/clean-air-strategy-2019](http://www.gov.uk/government/publications/clean-air-strategy-2019)
- <sup>11</sup> HMSO (2021). The Building Regulations 2021. Approved Document Part F: Ventilation
- <sup>12</sup> Department for Housing, Communities & Local Government, (2024) National Planning Policy Framework, London. Available: National Planning Policy Framework ([publishing.service.gov.uk](http://publishing.service.gov.uk))
- <sup>13</sup> Ministry of Housing, Communities & Local Government (2019) Planning Practice Guidance, London
- <sup>14</sup> Defra (2022) Local Air Quality Management Technical Guidance (TG22) – [online] (Last accessed: 14/03/2026), Available at: <https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf>
- <sup>15</sup> Environmental Protection UK and Institute of Air Quality Management (2017), Land-Use Planning & Development Control: Planning For Air Quality v1.2 – [online] (Last accessed: 14/03/2026), Available at: [iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf](http://iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf)
- <sup>16</sup> Institute of Air Quality Management (2024) Guidance on the assessment of dust from demolition and construction v2.2 – [online], (Last accessed: 14/03/2026), Available at: [iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf](http://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf)
- <sup>17</sup> Kirklees Metropolitan Borough Council (2019) Air Quality Strategy – [online]. (Last accessed: 09/04/2026), Available at: <https://www.kirklees.gov.uk/beta/crime-and-safety/pdf/AirQualityStrategy.pdf>
- <sup>18</sup> West Yorkshire Combined Authority (2016) West Yorkshire Low Emissions Strategy, – [online] (Last accessed: 14/03/2026), Available at: <https://www.kirklees.gov.uk/beta/crime-and-safety/pdf/WYLES-strategy.pdf>
- <sup>19</sup> West Yorkshire Low Emissions Group (2023) Air Quality & Emissions Technical Planning Guidance – [online], (Last accessed: 14/03/2026), Available at: <https://www.kirklees.gov.uk/beta/crime-and-safety/pdf/WYLES-air-quality-and-emissions-planning-technical-guide.pdf>
- <sup>20</sup> Kirklees Metropolitan Borough Council (n.d.) Kirklees Development team Advice for Developers – [online], (Last accessed: 14/03/2026), Available at: <https://www.kirklees.gov.uk/beta/planning-applications/pdf/air-quality.pdf>
- <sup>21</sup> Kirklees Metropolitan Borough Council (2025) Air Quality Annual Status Report – [online], (Last accessed: 14/03/2026), Available at : <https://www.kirklees.gov.uk/beta/crime-and-safety/pdf/kirklees-annual-status-report-2025.pdf>
- <sup>22</sup> Defra (2014) UK Pollutant Release and Transfer Register – [online], (Last accessed: 14/03/2026), Available at: [www.gov.uk/guidance/uk-pollutant-release-and-transfer-register-prtr-data-sets](http://www.gov.uk/guidance/uk-pollutant-release-and-transfer-register-prtr-data-sets)
- <sup>23</sup> Defra (2025) Background Pollution Maps – 2021 – [online], (Last accessed: 14/03/2026), Available at: [uk-air.defra.gov.uk/data/laqm-background-maps?year=2021](http://uk-air.defra.gov.uk/data/laqm-background-maps?year=2021)
- <sup>24</sup> Environment Agency (2020) Pollution Inventory – [online], (Last accessed: 14/03/2026), Available at: [data.gov.uk/dataset/cfd94301-a2f2-48a2-9915-e477ca6d8b7e/pollution-inventory](http://data.gov.uk/dataset/cfd94301-a2f2-48a2-9915-e477ca6d8b7e/pollution-inventory)
- <sup>25</sup> Defra (n.d) UK Ambient Air Quality Interactive Map – [online], (Last accessed: 14/03/2026), Available at: [uk-air.defra.gov.uk/data/gis-mapping](http://uk-air.defra.gov.uk/data/gis-mapping)
- <sup>26</sup> Cranfield Soil and Agrifood Institute Soilscales map – [online], (last accessed: 14/03/2026), Available at: <http://www.landis.org.uk/soilscales/>

## Appendix 1 - EHO consultation.

EHO request:

Kirklees Stadium Hotel - Air Quality Assessment



Mon 23/03/2026 09:41

Good afternoon,

Hoare Lea have been instructed to undertake an Air Quality Assessment to support the planning application for the proposed hotel adjoining the north stand of Kirklees Accu Stadium, Huddersfield, HD1 6PG. Please see the Site boundary below for reference.



The proposals comprise the demolition of the existing leisure centre and the construction of a new four-storey hotel, facilities and associated works.

Hoare Lea propose to undertake the assessment using the following methodology:

- A baseline assessment will be undertaken utilising the Kirklees Metropolitan Borough Council (KMBC) monitoring data from the most recent air quality Annual Status Report (2025). Monitoring data from 2024 will be used to establish the baseline.
- Defra's background pollution maps published for 2021 reference year, will be used to further establish background concentrations in the area.
- The existing monitoring data and Defra background concentrations will be used to qualitatively inform the suitability of the site for the proposed use.
- An assessment of the construction impacts on air quality and dust using the IAQM methodology, in compliance with the most recent 'The Control of Dust and Emissions During Construction and Demolition' guidance published in January 2024 (v2.2).
- Road traffic associated with the Proposed Development will be screened against the relevant EPUK and IAQM criteria of 500 LDVs and/or 100 HDVs annual average daily traffic (AADT) for a development outside an Air Quality Management Area. At this stage, it is not anticipated that this screening criteria will be exceeded.
- The primary energy strategy is expected to be all electric. As no combustion sources are proposed during normal operation, no local air quality impacts are anticipated and a detailed assessment of impacts of combustion emissions from the energy plant has been screened out of this assessment.
- The assessment will be undertaken in line with the EPUK and IAQM document 'Land-Use Planning & Development Control: Planning for Air Quality January 2017'.
- Air quality policies set out in the KMBC Local Plan 2026 and West Yorkshire Low Emissions Strategy, Air Quality & Emissions Technical Planning Guidance will be considered.

Please let me know if there are any additional guidance documents that aren't publicly available that you would like us to consider.

I would be grateful if you could please confirm your acceptance of the proposed methodology and provide me with any comments you may have.

If you would like to discuss anything further, please let us know.

Many thanks,

EHO response:

RE: Kirklees Stadium Hotel - Air Quality Assessment



Mon 23/03/2026 09:57

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Good morning,

Thank you for your email.

Please note that, as regulators in this process, we do not approve methodologies in advance. It is the responsibility of the appointed consultant to justify the methodology used in any forthcoming air quality assessment. This should be in accordance with legislation and good practice guidance. Should the planning department request our review of any documents submitted as part of the planning process, we will review the methodology at that stage.

Kind regards

## Appendix 2 – Legislation, policy and guidance.

Table 9: Legislation and national policy summary.

| Legislation and national policy    | Summary notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The Environment Act 1995 (Part IV) | The Environment Act requires the Secretary of State to publish an air quality strategy and local authorities to review and assess the quality of air within their boundaries (the latter is known as Local Air Quality Management)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| The Air Quality Strategy           | The Air Quality Strategy provides the policy framework for local air quality management and assessment in the UK. It sets out air quality standards and objectives for key air pollutants. These standards and objectives are designed to protect human health and the environment. The Strategy also sets out how the different sectors of industry, transport, and local government, can contribute to achieving these AQOs                                                                                                                                                                                                                                                                                                   |
| The Environment Act 2021           | The Environment Act 2021 acts as the UK's new framework of environmental protection and came into force on 1st April 2022. Regarding air quality, the Environment Act establishes a legally binding duty on government to bring forward at least two new air quality targets in secondary legislation. This was implemented through the Environmental Improvement Plan which outlines new PM <sub>2.5</sub> targets for future years. These are a long-term target of 10 µg/m <sup>3</sup> by 2040 and an interim target of 12 µg/m <sup>3</sup> by 31st January 2028. These targets are expected to focus on reducing concentrations of, and exposure to, PM <sub>2.5</sub> .                                                  |
| The Environmental Improvement Plan | In 2025, Defra released an interim planning guidance on the consideration of the Environment Act PM <sub>2.5</sub> targets. The interim planning guidance outlines the environmental targets (Fine particulate matter) (England) Regulations 2023. This is a target of 10 µg/m <sup>3</sup> by 2030. This target has been put in place to focus on reducing concentrations of, and exposure to PM <sub>2.5</sub> .                                                                                                                                                                                                                                                                                                              |
| EU Limit Values.                   | The European Union has also set limit values for NO <sub>2</sub> , PM <sub>10</sub> and PM <sub>2.5</sub> ; these are legally binding and have been implemented into English legislation by The Air Quality Standards Regulations 2010 and The Air Quality Standards (Amendment) Regulations 2016.<br>The limit values for NO <sub>2</sub> , PM <sub>10</sub> and PM <sub>2.5</sub> are the same as the English objectives (given in Table 2), but applied from 2010 for NO <sub>2</sub> , 2005 for PM <sub>10</sub> and 2015 for PM <sub>2.5</sub> . The limit values apply at all locations (apart from where the public does not have access, where health and safety at work provisions apply and on the road carriageway). |
| Statutory Nuisance Legislation     | Part III of the Environmental Protection Act (EPA) 1990 (as amended) and Section 79 of the EPA. Fractions of dust greater than 10 µm (i.e., greater than PM <sub>10</sub> ) in diameter typically relate to nuisance effects as opposed to potential health effects and therefore are not covered within the UK Air Quality Strategy. In legislation there are currently no numerical limits in terms of what level of dust deposition constitutes a nuisance.                                                                                                                                                                                                                                                                  |
| Clean Air Strategy                 | The Clean Air Strategy (CAS), published in 2019 sets out the Government's proposals aimed at delivering cleaner air in England, and indicates how devolved administrations intend to make emissions reductions. It sets out the comprehensive action that is required from across all parts of government and society to deliver clean air.                                                                                                                                                                                                                                                                                                                                                                                     |
| Building Regulations               | Part F of the Building Regulations (2021) provides guidance for indoor air quality and the pollutant concentrations that must not be exceeded in both buildings for dwellings and non-dwellings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| National Planning Policy Framework | The National Planning Policy Framework (NPPF) 2024 sets out planning policy for England. It includes advice on when air quality should be a material consideration in development control decisions. The most relevant Paragraphs for air quality are included below:                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Legislation and national policy | Summary notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                 | <p>Paragraph 187: <i>"Planning policies and decisions should contribute to and enhance the natural and local environment by: [...]"</i></p> <p><i>e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans. [...]"</i></p> <p>Paragraph 199: <i>"Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan."</i></p> <p>Paragraph 201: <i>"The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities."</i></p> |
| Planning Practice Guidance      | <p>The NPPF is supported by Planning Practice Guidance (PPG) which sets out relevant information for this assessment in:</p> <ul style="list-style-type: none"> <li>• Paragraph 001 (Reference ID: 32-001-20191101)</li> <li>• Paragraph 002 (Reference ID: 32-002-20191101)</li> <li>• Paragraph 005 (Reference ID: 32-005-20191101)</li> </ul> <p>The PPG also sets out the information that may be required in an air quality assessment in:</p> <ul style="list-style-type: none"> <li>• Paragraph 007 (Reference ID: 32-007-20191101)</li> </ul> <p>It also provides guidance on options for mitigating air quality impacts in:</p> <ul style="list-style-type: none"> <li>• Paragraph 008 (Reference ID: 32-008-20191101):</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Table 10: Primary guidance documents summary table.

| Primary guidance documents                            | Summary notes                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Defra Local Air Quality Management Technical Guidance | Defra's LAQM.TG(22) was published for use by local authorities in their LAQM review and assessment work. The document provides key guidance in aspects of air quality assessment, including screening, use of monitoring data and use of background data that are applicable to all air quality assessments. |

| Primary guidance documents                        | Summary notes                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EPUK and IAQM 'Air Quality Guidance for Planning' | Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM) have together published guidance (EPUK and IAQM planning guidance) to help ensure that air quality is properly accounted for in the development control process.                                                                                                            |
| IAQM 'Construction and Demolition Dust Guidance'  | Guidance on the assessment of dust from demolition and construction has been published by the IAQM (IAQM construction guidance) <sup>16</sup> . The guidance provides a methodology to determine the dust emission magnitude and provides a series of matrices to determine the risk magnitude of potential dust sources associated with construction activities. |

## Appendix 3 - Mitigation measures for construction phase.

Table 11: Mitigation measures for construction phase.

| Issue                              | Mitigation measure                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Communications                     | Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.                                                                                                                                                                                                                                                                      |
|                                    | Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.                                                                                                                                                                                                          |
|                                    | Display the head or regional office contact information.                                                                                                                                                                                                                                                                                                                                       |
| Dust Management Plan               | Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The DMP may include monitoring of dust deposition, dust flux, real-time PM <sub>10</sub> continuous monitoring and/or visual inspections.                                                                                                          |
| Site Management                    | Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.                                                                                                                                                                                                                                |
|                                    | Make the complaints log available to the Local Authority when asked.                                                                                                                                                                                                                                                                                                                           |
|                                    | Record any exceptional incidents that cause dust and/or air emissions, either on- or off- site, and the action taken to resolve the situation in the log book.                                                                                                                                                                                                                                 |
| Monitoring                         | Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the Local Authority when asked. This should include regular dust soiling check of surfaces such as street furniture, cars, window sills within 100 m of the site boundary, with cleaning to be provided if necessary. |
|                                    | Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the Local Authority when asked.                                                                                                                                                                                                                      |
|                                    | Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.                                                                                                                                                         |
|                                    | Agree dust deposition, dust flux, or real-time PM <sub>10</sub> continuous monitoring locations with the Local Authority. Where possible, commence baseline monitoring at least three months before work commences on site or, if it is a large site, before work on a phase commences.                                                                                                        |
| Preparing and maintaining the site | Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.                                                                                                                                                                                                                                                                         |
|                                    | Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.                                                                                                                                                                                                                                                              |
|                                    | Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.                                                                                                                                                                                                                                                  |
|                                    | Avoid site runoff of water or mud.                                                                                                                                                                                                                                                                                                                                                             |
|                                    | Keep site fencing, barriers and scaffolding clean using wet methods.                                                                                                                                                                                                                                                                                                                           |
|                                    | Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used cover as described below.                                                                                                                                                                                                                        |
|                                    | Cover, seed or fence stockpiles to prevent wind whipping.                                                                                                                                                                                                                                                                                                                                      |

| Issue                                               | Mitigation measure                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating vehicles/machinery and sustainable travel | Ensure all vehicles switch off engines when stationary – no idling vehicles.                                                                                                                                                                                                                                                                                        |
|                                                     | Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable.                                                                                                                                                                                                                                      |
|                                                     | Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the Local Authority, where applicable).        |
|                                                     | Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking and car-sharing)                                                                                                                                                                                                                                        |
| Operations                                          | Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.                                                                                                                                                        |
|                                                     | Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.                                                                                                                                                                                                   |
|                                                     | Use enclosed chutes and conveyors and covered skips.                                                                                                                                                                                                                                                                                                                |
|                                                     | Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.                                                                                                                                                                                            |
|                                                     | Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.                                                                                                                                                                                      |
| Waste management                                    | Avoid bonfires and burning of waste materials.                                                                                                                                                                                                                                                                                                                      |
| Demolition                                          | Soft strip inside building before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).                                                                                                                                                                                                            |
|                                                     | Ensure effective water suppression is used during demolition activities. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground. |
|                                                     | Avoid explosive blasting, using appropriate manual or mechanical alternatives.                                                                                                                                                                                                                                                                                      |
|                                                     | Bag and remove any biological debris or damp down such material before demolition.                                                                                                                                                                                                                                                                                  |
| Construction                                        | Avoid scabbling (roughening of concrete surfaces) if possible.                                                                                                                                                                                                                                                                                                      |
|                                                     | Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.                                                                                                                                       |
|                                                     | Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.                                                                                                                                                      |
|                                                     | For smaller supplies of fine powder materials, ensure bags are sealed after use and stored appropriately to prevent dust.                                                                                                                                                                                                                                           |
| Trackout                                            | Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being in continuous use.                                                                                                                                                                              |

| Issue | Mitigation measure                                                                                                                                |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------|
|       | Avoid dry sweeping of large areas.                                                                                                                |
|       | Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.                                           |
|       | Record all inspections of haul routes and any subsequent action in a site log book.                                                               |
|       | Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable). |

## Appendix 4 - Professional experience.

### Lauren Buchanan (Hoare Lea), MSc, BSc (Hons), AMIEnvSc, MIAQM

Lauren is a Principal Air Quality Consultant at Hoare Lea. She is an Associate Member of the Institution of Environmental Sciences and a Member of the Institute of Air Quality Management. She has worked on a range of projects gaining experience in many different aspects of air quality assessment, including monitoring and detailed dispersion modelling of dust, odour, roads and industrial emissions for a variety of sectors and to fulfil Local Air Quality Management (LAQM) duties on behalf of Local Authorities. Lauren has undertaken air quality assessments for permit requirements and planning applications, including stand-alone reports, Environmental Impact Assessments, Habitats Regulations Assessments and Development Consent Orders.

### Josh Jones (Hoare Lea), MSci (Hons), MEnvSc, MIAQM

Josh is a Principal Air Quality Consultant with Hoare Lea. He has over 8 years' experience in the Air Quality field. His role includes the production and project management of air quality assessments, including monitoring and detailed dispersion modelling of dust, odour, roads and industrial emissions, in support of both planning and permit applications for a wide variety of clients across a range of sectors, including residential, industrial, energy and healthcare. He also has detailed knowledge of the LAQM process, the EIA process, co-ordination of multi-disciplinary environmental impact assessment work in support of planning applications and dispersion modelling studies.

### Jack Race (Hoare Lea), MSci (Hons), AMIEnvSc, AMIAQM

Jack is a Graduate Air Quality Consultant with Hoare Lea aiding in air quality assessment, indoor air quality and dispersion modelling projects.

Jack graduated from UCL with a masters in chemistry where he focused on sustainable and new energy projects. During university, Jack worked on multiple air quality projects, with a focus on passive and continuous outdoor monitoring using diffusion tubes and volatile organic compound (VOC) sensors.



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